

P Ribes nigrum

Common Name(s)

Black Currant

How Used

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Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
30	(+)-CATECHIN	Fruit	5500	13800	1
7	(+)-GALLOCATECHIN	Fruit	--	--	
0	(+)-HARDWICKIIC ACID	Bud	--	--	
0	(+)-SPATHULENOL	Bud	--	--	
67	1,8-CINEOLE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	1-METHYL-4-ISOPROPYLBENZOL	Plant	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	1-PENTEN-3-OL	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-BUTANOL	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-BUTANONE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-HEXENAL	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	2-METHYL-3-BUTEN-2-OL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-METHYL-PROPANOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-PENTANOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	3-METHYL-2-BUTEN-1-OL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	3-METHYL-BUTANOL	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	ACETALDEHYDE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
16	ACETIC-ACID	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	ACETONE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ALPHA-ALANINE	Fruit Juice	210	210	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
15	ALPHA-LINOLENIC-ACID	Seed Essent. Oil	120000	120000		
15	ALPHA-LINOLENIC-ACID	Fruit	720	3988	0.6535435807651567	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Seed Oil	--	--		
28	ALPHA-PINENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	ALPHA-PINENE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	ALPHA-TERPINENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
23	ALPHA-TERPINEOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
32	ALPHA-TOCOPHEROL	Fruit	22	120	0.7254612491691786	
5	ALUMINUM	Fruit	3	65	-0.2046115023876262	ACTA AGRIC SCAND SUPPL 22: 1980
30	ANTHOCYANINS	Fruit	10000	40000	1	
0	ANTHOCYANOSIDES	Fruit	3000	3000	-1	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
14	ARGININE	Fruit Juice	35	35		
2	ARSENIC	Fruit	0.01	0.06	-0.46003213545175	ACTA AGRIC SCAND SUPPL 22: 1980
112	ASCORBIC-ACID	Fruit	150	10030	0.3391462316019611	
112	ASCORBIC-ACID	Leaf	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	ASH	Fruit	8050	61100	0.11487797078072934
2	ASPARAGINE	Fruit Juice	87	87	
3	ASPARTIC-ACID	Fruit Juice	23	23	
7	ASTRAGALIN	Leaf	--	--	
7	ASTRAGALIN	Fruit Juice	--	--	
24	BENZALDEHYDE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	BETA-ALANINE	Fruit Juice	12	12	
53	BETA-CAROTENE	Fruit	1	8	-0.1353367732684366 USDA's Ag Handbook 8 and sequelae)
0	BETA-OCIMENE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	BETA-PHELLANDRENE	Bud	--	--	

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
3	BETA-PHELLANDRENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	BETA-PHELLANDRENE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	BETA-PINENE	Fruit	--	130000	3.8670699671319455	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	BORON	Fruit	1	64	0.4846568688508411	
0	BROMINE	Fruit	--	1	-0.42563543443835	ACTA AGRIC SCAND SUPPL 22: 1980

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
0	BUTANOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BUTYL-ACETATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BUTYL-FORMIATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	BUTYRALDEHYDE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	CADMIUM	Fruit	0.001	0.01	-0.6142357150186111	ACTA AGRIC SCAND SUPPL 22: 1980

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
102	CAFFEIC-ACID	Fruit	--	--		
28	CALCIUM	Fruit	502	4720	0.1993108709232679	
0	CALCIUM-PECTATE	Fruit	9000	17000	-0.4368211543046611	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
9	CAMPHENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CAR-3-ENE	Bud	--	--		
0	CARBOHYDRATES	Fruit	153800	852050	0.3698785649141745	USDA's Ag Handbook 8 and sequelae)
0	CAREN-3	Leaf	38	38		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
31	CARYOPHYLLENE	Fruit	--	119000	3.1497138144144925	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
31	CARYOPHYLLENE	Leaf	34	34	-0.6484758776339403	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	CELLULOSE	Fruit	--	--		
77	CHLOROGENIC-ACID	Fruit	--	--		
24	CHROMIUM	Fruit	0.01	0.27	-0.46970952066350025	ACTA AGRIC SCAND SUPPL 22: 1980
18	CINNAMIC-ACID	Fruit	--	--		
0	CIS-BETA-OCIMENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	CIS-HEX-3-EN-1-OL	Plant	--	--		
23	CITRIC-ACID	Fruit	--	35000	-0.07872984738636099	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
15	CITRONELLOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	CITRONELLYL-ACETATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	CITRONELLYL-ACETATE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	COBALT	Fruit	0.002	0.027	-0.5318466177584126	ACTA AGRIC SCAND SUPPL 22: 1980
12	COPPER	Fruit	0.6	7	-0.45288591601748224	
7	CYANIDIN	Plant	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	CYANIDIN-3-DIGLUCOSIDE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CYANIDIN-3-GLUCOSIDE	Fruit	--	--	
0	CYANIDIN-3-O-BETA-D-SOPHOROSIDE	Fruit Juice	--	--	
0	CYANIDIN-3-O-RHAMNOSIDE	Fruit	--	--	
1	CYANIDIN-3-RUTINOSIDE	Fruit	--	--	
0	CYANIDIN-MONOGLUCOSIDE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	CYANIN	Fruit	--	--	
0	DACTYLIFRIC-ACID	Fruit	--	--	
0	DEHYDROXY-METHYL FLAZIN	Fruit	0.38	0.38	
9	DELPHINIDIN	Plant	--	--	

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DELPHINIDIN-3-DIGLUCOSIDE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	DELPHINIDIN-3-GLUCOSIDE	Fruit	--	--	
1	DELPHINIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--	
0	DELPHINIDIN-3-O-BETA-D-SOPHOROSIDE	Fruit Juice	--	--	
0	DELPHINIDIN-3-O-RHAMNOSIDE	Fruit	--	--	
0	DELPHINIDIN-3-RUTINOSIDE	Fruit	--	--	
8	DELTA-3-CARENE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	DIOSPHENOL	Bud	--	--	
0	EMULSIN	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	EO	Leaf	200	200	-0.99702714807754
0	EO	Bulb	7500	7500	-0.3719457894724333 ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	EPIGALLOCATECHIN	Leaf	--	--	
24	ETHANOL	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	ETHYL-ACETATE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
1	ETHYL-BENZOATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	ETHYL-BUTYRATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	EUCARVONE	Bud	--	--		
0	FAT	Seed	250000	305000	0.20865272626089487	
0	FAT	Fruit	3150	27977	-0.42756601418508344	USDA's Ag Handbook 8 and sequelae)
61	FERULIC-ACID	Fruit	--	--		
15	FIBER	Fruit	24000	133000	-0.08187450385949027	USDA's Ag Handbook 8 and sequelae)
0	FLAVONOIDS	Leaf	4600	4600	-0.7749897228740793	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	FLAZIN METHYL ETHER	Fruit	0.34	0.34		
0	FLUORINE	Fruit	0.1	2.8	1.4296307542003595	ACTA AGRIC SCAND SUPPL 22: 1980
12	FORMALDEHYDE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	FORMIC-ACID	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	FRUCTOSE	Fruit	36700	36700	-0.34464105992956867	
0	GALLOCATECHIN	Leaf	--	--		
0	GALLOCATECHIN-(4-ALPHA-8)-GALLOCATECHIN-(4-ALPHA-8)-GALLOCATECHIN-GENTISIC-ACID	Fruit	--	--		
1	GALLOCATECHIN-(4ALPHA->8)-EPIGALLOCATECHIN	Leaf	--	--		
1	GALLOCATECHIN-(4ALPHA->8)-GALLOCATECHIN	Leaf	--	--		
1	GALLOCATECHIN-(4ALPHA->8)-GALLOCATECHIN-(4ALPHA->8)-GALLOCATECHIN	Leaf	--	--		
20	GAMMA-LINOLENIC-ACID	Seed Oil	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
20	GAMMA-LINOLENIC-ACID	Seed Essent. Oil	170000	170000	0.4877131100041326	
20	GAMMA-LINOLENIC-ACID	Seed	47500	57950	0.32865774651972557	
8	GENTISIC-ACID	Fruit	--	--		
35	GERANIOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
35	GERANIOL	Leaf	12	12	-0.22490199642499295	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	GLUCOSE	Fruit	23500	23500	-0.6456924807905674	
8	GLUTAMIC-ACID	Fruit Juice	210	210		
5	GLUTAMINE	Fruit Juice	290	290		
0	GLYCOLLIC-ACID	Fruit	--	--		

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
4	HARDWICKIC-ACID	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	HEXANOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	HUMULENE	Leaf	4	4	-0.45322095661158035	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	HUMULENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
1	INDOLE-ACETIC-ACID	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	INVERT-SUGARS	Fruit	60000	80000	-1.049209219859784	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	IRON	Fruit	11	108	-0.0990812909090042	USDA's Ag Handbook 8 and sequelae)
0	ISO-AMYBUTYRATE	Fruit	--	--		
0	ISOAMYL-BUTYRATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ISODIOPHENOL	Bud	--	--		
3	ISOLEUCINE	Fruit Juice	28	28		
3	ISOMENTHONE	Bud	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
22	ISOQUERCITRIN	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	ISOQUERCITRIN	Leaf	--	--		
22	ISOQUERCITRIN	Fruit Juice	--	--		
75	KAEMPFEROL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
75	KAEMPFEROL	Fruit Juice	--	--		
0	KAEMPFEROL-3-GLUCO-RHAMNOSIDE	Leaf	--	--		
0	KAEMPFEROL-3-GLUCO-XYLOSIDE	Leaf	--	--		
0	KAEMPFEROL-3-O-BETA-D-RUTOSIDE	Fruit Juice	--	--		
0	LEAD	Fruit	0.04	0.6	-0.4548229499765365	ACTA AGRIC SCAND SUPPL 22: 1980
2	LEUCINE	Fruit Juice	28	28		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
60	LIMONENE	Leaf	7	7	-0.4404202146791783 List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	LINALOL	Leaf	--	7	-0.43845318464692984
53	LINALOOL	Leaf	7	7	-0.6425964378968151 List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
27	LINOLEIC-ACID	Fruit	1070	5928	-0.27176478274180926 USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Seed Oil	--	--	
27	LINOLEIC-ACID	Seed Essent. Oil	450000	450000	-0.38185378196002584

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	LINOLENIC-ACID	Seed Oil	--	--		
15	LUTEIN	Fruit	4.4	22	1.0661490848102466	
0	M-CYMOL	Leaf	3	3		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
65	MAGNESIUM	Fruit	220	1720	-0.18973196351432575	
14	MANGANESE	Fruit	0.5	27	-0.22550301209784723	
1	MERCURY	Fruit	--	0.01	-0.3661474335745678	ACTA AGRIC SCAND SUPPL 22: 1980
2	METHANOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	METHYL-BENZOATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
2	METHYL-BUTYRATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	METHYL-N-HEXENOATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
21	METHYL-SALICYLATE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
21	METHYL-SALICYLATE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	MOLYBDENUM	Fruit	0.1	0.6	-0.36498673733922654	ACTA AGRIC SCAND SUPPL 22: 1980

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
22	MYRCENE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	MYRCENE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
34	MYRICETIN	Fruit Juice	--	--	
34	MYRICETIN	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	MYRICETIN-3-GLUCOSIDE	Leaf	--	--	
0	MYRICETIN-3-O-BETA-D-GLUCOSIDE	Fruit Juice	--	--	
2	NEO-CHLOROGENIC-ACID	Fruit	--	--	
39	NIACIN	Fruit	3	17	-0.5841679380957736 USDA's Ag Handbook 8 and sequelae)

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
3	NICKEL	Fruit	0.101	0.101	-0.7487450285711046	ACTA AGRIC SCAND SUPPL 22: 1980
0	NITROGEN	Fruit	1800	12775	-0.12952772042220517	ACTA AGRIC SCAND SUPPL 22: 1980
0	NORVALINE	Fruit Juice	17	17		
4	O-COUMARIC-ACID	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	OCT-1-EN-3-OL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	OCTEN-1-OL-(3)	Leaf	13	13		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
18	OLEIC-ACID	Seed Oil	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
18	OLEIC-ACID	Seed Essent. Oil	120000	120000	-0.7071067811865472	
18	OLEIC-ACID	Fruit	560	3102	-0.45683700824558143	USDA's Ag Handbook 8 and sequelae)
9	OXALIC-ACID	Fruit	200	200	-0.29532056034744525	
25	P-COUMARIC-ACID	Fruit	--	--		
16	P-CYMENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-CYMENOL-(4)	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-CYMOL	Leaf	3	3	-0.542974500379653	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-MENTH-1,8-DIEN-4-OL	Bud	--	--		

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
0	P-METHYLISOPROPENYLBENZOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	PALMITIC-ACID	Fruit	200	1108	-0.34828639336044304	USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Fruit	70	388	-0.27451591357747396	USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Fruit	4	22	0.24848336964903023	USDA's Ag Handbook 8 and sequelae)
24	PECTIN	Fruit	--	--		
0	PECTINESTERASE	Fruit	--	--		
0	PELARGONIDIN-3-O-BETA-D-RUTINOSIDE	Fruit Juice	--	--		
0	PENTANAL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
0	PENTANOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	PHOSPHORUS	Fruit	490	3500	0.08626372418040051	
14	POTASSIUM	Fruit	3100	21110	0.2825398898770841	
0	PROANTHOCYANIDIN-POLYMER	Fruit	--	--		
0	PROANTHOCYANIDIN-POLYMER	Leaf	--	--		
0	PROLINE	Fruit Juice	98	98		
0	PROPANOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PROTEIN	Leaf	141700	141700	-0.6997646435396685	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	PROTEIN	Fruit	12000	88640	-0.2796177988591396	USDA's Ag Handbook 8 and sequelae)
43	PROTocatechuic-acid	Fruit	--	--		
28	Pulegone	Bud	--	--		
176	Quercetin	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
176	Quercetin	Fruit Juice	--	--		
2	Quercetin-3'-glucoside	Fruit	--	--		
0	Quercetin-3-glucosyl-xylan	Leaf	--	--		
0	Quercetin-3-O-beta-D-rutinoside	Fruit Juice	--	--		
44	Quercitrin	Fruit Juice	--	--		
44	Quercitrin	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
1	QUINIC-ACID	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	RIBOFLAVIN	Fruit	1	3	-0.4303249009534089 USDA's Ag Handbook 8 and sequelae)
0	RUBIDIUM	Fruit	1	28	0.675517753106432 ACTA AGRIC SCAND SUPPL 22: 1980
87	RUTIN	Fruit Juice	--	--	
87	RUTIN	Fruit	--	--	
87	RUTIN	Leaf	--	--	
5	SABINENE	Bud	--	--	
4	SAKURANETIN	Leaf	--	--	
7	SALICYLATES	Fruit	3	30	-0.2507181157512923
60	SELENIUM	Fruit	--	0.002	-0.38569128420884563
1	SERINE	Fruit Juice	60	60	
4	SILICON	Fruit	10	220	0.1063310267247835 ACTA AGRIC SCAND SUPPL 22: 1980

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
1	SODIUM	Fruit	20	111	-0.17342478111859652 USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Fruit	70	388	-0.2534900563026795 USDA's Ag Handbook 8 and sequelae)
0	STEARIDONIC ACID	Seed Essent. Oil	30000	30000	
0	STEARIDONIC ACID	Seed Oil	--	--	
0	STYROL	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	SUCROSE	Fruit	--	6200	-0.7028560356117206
0	SUGARS	Fruit	15800	106400	-0.4450056891324181
14	SULFUR	Fruit	200	1385	-0.02058118469316889 ACTA AGRIC SCAND SUPPL 22: 1980
6	SYRINGIC-ACID	Fruit	--	--	

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
0	TANNINS	Leaf	85000	85000	-0.12203041771161947	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TERPINENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TERPINENOL-(4)	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TERPINENOL-(4)	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	TERPINOLENE	Bud	--	--		

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
9	TERPINOLENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
31	THIAMIN	Fruit	1	3	-0.29859918253223444	USDA's Ag Handbook 8 and sequelae)
4	THREONINE	Fruit Juice	17	17		
0	TRANS-BETA-OCIMENE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TRANS-CHLOROGENIC-ACID	Fruit	--	--		
0	TRANS-HEX-2-EN-1-OL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	VALINE	Fruit Juice	170	170		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	VIT-B-6	Fruit	1	4	-0.7070236337221133	USDA's Ag Handbook 8 and sequelae)
0	VITAMIN-K-1	Fruit	10.1	10.1		
0	WATER	Fruit	815220	824000	0.23229369814712902	USDA's Ag Handbook 8 and sequelae)
77	ZINC	Fruit	2	21	-0.27984522139310664	